Arizona Wilderness Coalition, Western Deserts Regional Coordinator
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From: Jay Krienitz [jkrienitz@azwild.org]
Sent: Tuesday, September 23, 2003 5:52 PM
To: Pell, Jerry
Subject: Concerning the Tucson Electric Power Sahuarita-Nogales Transmission line DEIS

Dr. Jerry Pell

Office of Fossil Energy
U.S. Department of Energy
Washington D.C. 20585

Concerning the Tucson Electric Power Sahuarita-Nogales Transmission line DEIS

As a long time wilderness user and wilderness advocate, I have had the chance to experience the grandeur or Arizona's wild places, of which the Tumacacori and Atascosa Mountains are an unparalleled beauty. The proposed powerline will forever degrade the natural features and character of this majestic place, and is incompatible with the public desire to preserve for future generations. This area is a very important place for the people of Arizona as is indicated through the citizen's proposal of the Tumacacori's for wilderness designation. This powerline would forever scar future wild and recreational qualities of the area. 1

Both the Western and Crossover Routes are unacceptable proposals. The preferred Western Route is the longest, most expensive, and most environmentally damaging of all alternatives considered. The Crossover route is equally terrible.

TEP proposes to build over 20 new miles of road for the Preferred Route. The road density in the Tumacacori EMA is already above acceptable limits as set forth in the current Forest Plan. More road building, even with associated closures (often unsuccessful) would be in gross violation of the Forest Plan. 2

Comment No. 1

The Federal agencies recognize that many people value certain areas along the alternative transmission corridors as wild places and have a holistic concern for the natural beauty, undisturbed landscape features, and abundant plant and animal wildlife that characterize those areas. These unique natural characteristics give such wild areas their "sense of place," which includes peoples' visual and aural perceptions of the area's undisturbed sky, natural landscape, water resources, and plant and animal populations. The sense of place also includes the spiritual value that many people associate with these wild areas because of their cultural and religious significance. The Federal agencies recognize and appreciate this holistic sense of place and have revised the introductory text of Chapters 3 and 4 of the Final EIS to acknowledge these values.

The agencies recognize that the natural and cultural characteristics that contribute to a sense of place cannot be measured in the same manner as some other resources in an environmental analysis. However, in order to analyze potential impacts effectively and document the analysis, it is necessary to consider the resource areas individually. Thus, the EIS discussions of affected environment in Chapter 3 and potential impacts in Chapter 4 are divided into distinct resource areas (e.g., visual resources, biological resources, cultural resources). For example, Section 3.2 of the EIS presents information about the visual resources of the Tumacacori and Atascosa Mountains, and Section 4.2 presents an analysis of potential impacts to those resources for each alternative. Similarly, Sections 3.1.2 and 4.1.2, respectively, present information on existing recreational settings and activities and potential impacts to recreation from the proposed project, including impacts to characteristics such as remoteness and naturalness.

Section 4.1.2 specifically evaluates impacts to indicators such as remoteness and naturalness, both of which would have changes that are not compatible with the existing Recreation Opportunity Spectrum (ROS) classes for much of the length of the Western and Crossover Corridors within the Coronado National Forest. Section 4.1.2.4 (ROS Impacts Summary for Western, Central, and Crossover Corridors) in the Final EIS includes revised text which concludes that the proposed transmission line is out of character with recreational settings in the area, but that when considering the overall impact

Comment No. 1 (*continued*)

of the proposed transmission line for each area it crosses, it alone would not change ROS settings. Therefore, the proposed project would not result in the re-classification of areas by USFS in terms of the recreational experience each area provides. The Federal agencies are aware that environmental groups are interested in achieving Federal wilderness designation for a large portion of the Tumacacori Ecosystem Management Area (EMA). Maps provided by commentors indicate that all corridor alternatives considered in this EIS cross the area suggested for wilderness designation. Presence of a transmission line would not necessarily preclude wilderness designation, as the Wilderness Act of 1964 and Forest Service regulations (36 CFR 293.15) allow for the existence, establishment and subsequent maintenance of transmission lines in wilderness areas. Information about the wilderness proposal has been added to Section 5.2.4 of the FEIS as a potential future action.

Comment No. 2

The Tumacacori EMA of the Coronado National Forest in and of itself does not exceed road density limits set forth in the Forest Plan. Road density limits set forth in the Forest Plan are for the Coronado National Forest as a whole, not for individual land units or EMAs within the Coronado National Forest. On a Forest-wide basis, the density of existing roads and new road construction is limited to one mile of road or less per square mile. Per the *Coronado National Forest Forest Level Roads Analysis Report* dated January 13, 2003, the existing road density on the Coronado National Forest is approximately 0.8 miles per square mile based on the area of the National Forest Systems Land (1,717,857 acres (2,684 square miles) and 2,187.25 miles of jurisdiction road in the inventory). None of the alternatives would change the existing road density because TEP would close 1.0 mi (1.6 km) of existing classified road for every 1.0 mi (1.6 km) of proposed road to be used in the operation or long-term maintenance of the project**.** Any authorization issued to implement the proposed project on the Coronado National Forest would contain terms and conditions, as appropriate, to ensure road barrier effectiveness and maintenance. Based on the discussion above, the proposed project would be consistent with Forest Plan standards and guidelines for road density.

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3 I agree with other concerned parties that there is no "Need" stated for a 345 kV line by either the applicant (TEP) or agencies - because most of the energy transmitted on the line would not benefit Santa Cruz County, why is the 345 kV, and not a smaller line, needed? A smaller, less obtrusive powerline, such as a 115 kV line was not considered for any route. Why not? A 115 kV line is cheaper, can more easily be buried in sensitive areas near homes, and would serve the long-term needs of Santa Cruz County.

I do not support the proposed routes because they do not serve Santa Cruz County's interests, as originally intended under ACC order 62011. They are an unnecessary economic, environmental, and culture burden on Southern Arizona.

1 cont. In a time of shrinking wildlands, this is another attempt at the theft of our God-given natural heritage. This landscape has been wild since the beginning of time, and is still in beautiful natural condition. This powerline will exist far into the future and is not worth degrading what geologic and natural evolution has produced in this beautiful landscape. Please consider withdrawing the Draft

3 cont. Environmental Impact Statement and issuing an assessment that properly analyzes real solutions to power needs in Santa Cruz County that include a smaller powerline and/or locally run power plant.

Jay Krienitz
AWC Western Deserts Regional Coordinator
www.azwild.org

Office: (928)717-6076
Cell: (928)713-0245

"You can't hug a biogeochemical cycle"
-Ed Grumbine, 1992

Comment No. 3

The EIS has been revised to include a more extensive explanation (in Section 1.2, Purpose and Need) of the roles of TEP and the Federal agencies in developing alternatives for the proposed project. In permit proceedings such as TEP's, where an applicant seeks permission for a specific proposed project to meet the applicant's specific purpose and need, the Federal agencies generally limit their review to alternatives similar to the one proposed, i.e., that is, alternatives that would meet the applicant's purpose and need. The agencies generally do not review alternatives that are not within the scope of the applicant's proposals. Similarly, the Federal agencies do not compel a permit applicant to alter its proposal or its purpose and need, but instead they decide whether a permit is appropriate for the specific proposal as the applicant envisioned it. It is not for the agencies to run the applicant's business or to compel an applicant to change its proposal: DOE evaluates the project as offered. Therefore, in an applicant-initiated process, the range of reasonable alternatives analyzed in detail is limited to those alternatives that would satisfy the applicant's purpose and need and that the applicant would be willing and able to implement, plus the no-action alternative. All of the alternatives analyzed in this EIS were either suggested by or similar to alternatives suggested by TEP.

This approach is particularly apt where, as here, the proposed action reflects a state's decision as to the kind and location of electrical infrastructure it wants provided within its boundaries. The ACC is vested with the authority to decide how it believes energy should be furnished within Arizona's borders, including the need for, the location of, and the effectiveness of transmission lines within its borders. See the discussion at Section 1.1.2 and 1.2.2 of the EIS with respect to the respective jurisdictions and authorities of the state and Federal agencies, and their relationship to this NEPA review. TEP's proposal has the dual purpose of addressing problems of electrical reliability in Santa Cruz County, Arizona, and crossing the border to eventually interconnect with the Mexican electrical grid. Alternatives that would not satisfy both elements of this dual purpose are not reasonable alternatives for the Federal agencies to consider in detail.

Thus, during the course of this NEPA review, the Federal agencies have considered alternative routes for TEP's proposed transmission line, but have not deemed feasible proposed alternatives that contemplate construction of power plants or transmission lines that differ in capacity from those that the

Comment No. 3 (*continued*)

ACC has directed TEP to construct.

Section 2.1.5 discusses why a new power plant in Nogales is not a viable alternative to a new, second transmission line (part of TEP's proposal). As discussed in that section, "new local generation does not pre-empt the need for a second transmission line. This is because the system deficiency is not a supply problem but rather a delivery problem that new generation can not solve. New local generation would be susceptible to tripping off line for a transmission line outage just like the existing Valencia units until a second transmission line connects Nogales to the Arizona grid." Likewise, a smaller transmission line in lieu of the proposed 345-kV line (e.g., a 115-kV line) would not meet the international interconnection aspect of TEP's proposal. Therefore, these alternatives are not evaluated in detail in this EIS (see Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis).

Beals, Linda R., Manager, Arizona State Land Department
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From: Linda Beals [mailto:LBeals@land.az.gov]
Sent: Monday, April 05, 2004 1:03 PM
To: Mark.Blauer@tetratech.com
Cc: Keith_Moon@blm.gov; Pell, Jerry; Greg Keller; Jim Adams; James Rees; Richard Hubbard; Richard Oxford
Subject: TEP-DOE Siting

The Arizona State Land Department is still in the process of reviewing the Draft Environmental Impact Statement prepared by the DOE for the TEP Sahuarita-Nogales Transmission Line.

Our initial observations are as follows:

1.) There is a significant amount of Arizona State Trust Land impacted by all of the proposed alignments. (Approximately 30% of the alignment in each of the proposes routes.) We are concerned about the limited discussion of the State Trust and would propose the following language by incorporated into the EIS under (Section 1.2.2):

The Arizona State Land Department manages approximately 9.3 million acres of State owned "Trust" lands. These lands were granted to the State of Arizona under provisions in the federal Enabling Act that provided for Arizona's statehood in 1912. The lands are held in trust for fourteen public beneficiaries including Arizona's public schools and several state supported institutions.

1 The Department functions as the trustee of the State Land and it's natural resources. The Department's management of the trust is governed by extensive and detailed provisions in the Enabling Act (Sections 24-30), Act June 20, 1910, (c). 310,36 U.S. Stat. 557, 568-579). The Arizona Constitution (Article 10), and statutes in A.R.S. Titles 27 and 37. In addition there is extensive case law which governs the Department's procedures and management of the Trust.

The role, in this instance, of the State Land Department is to determine whether to approve an easement for the preferred right of way alignment for a power transmission line as well as a fiber optic communication line incorporated in the power line. In processing an application for a right of way, the Department will consider land status, current uses, existing lessees, affected resources, environmental issues, local and regional land use plans and comments from interested parties as well as other issues that may present themselves in the application process.

2.) Each of the alignments will have some degree of impact on trust land. The Department's mission is to manage State Trust Lands and resources to enhance value and optimize economic return for the Trust's beneficiaries consistent with sound stewardship, conservation and business management principles. The central alignment would have the greatest impact on the monetary value/income producing ability of the trust land. This is the land closer to the highway, portions of which are anticipated to be developed in the foreseeable future.
2 However, the proposed Western and Crossover corridors cross approximately five miles of trust land and the proposed Central corridor crosses approximately 6.5 miles of trust land in the Tinaja Hills area (Pima County) identified as "conservation option lands" under the proposed State Trust Land Reform package to be presented to Arizona's voters in 2004. A goal of the State Trust Land Reform package is to improvement management and planning of trust lands and to conserve significant lands. The "Conservation Option" trust lands impacted are as follows:

11/23/2004

Comment No. 1

State Trust Lands in the project area are shown in Figure 1.1–2. The information submitted by the commentor has been incorporated, as appropriate, into Section 3.1.1 of the Final EIS**.**

Comment No. 2

This information submitted by the commentor has been incorporated, as appropriate, into Section 4.1.1 of the Final EIS**.**

Beals, Linda R., Manager, Arizona State Land Department
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WESTERN AND CROSSOVER CORRIDORS

Township 19 South, Range 12 East
* S2, Section 5; All Section 6
S2, Section 7;
N2, Section 8;
* All, Section 16; All Section 17
* E2, Section 19; All Section 20
All, Section 32

Township 20 South, Range 12 East
N2NE, Section

CENTRAL CORRIDOR

2 cont.

Township 18 South, Range 12 East
S2S2, Section 23
All, Section 26
All, Section 35

Township 19 South, Range 12 East
* All, Section 2; All, Section 3
* All, Section 10; All, Section 11
* All, Section 14; All, Section 15
N2N2 Section 22

*Proposed corridor alignment appears to follow section line boundaries between the parcels identified.

3.) Existing Leases- There are a number of existing leases within the proposed alignments. Most of them are grazing leases and proposed corridor should be able to co-exist these. There are minor accommodations for fencing, ranch roads, water facilities and similar grazing improvements that we need to consider. However, as we have previously discussed, the Arizona State Land Department currently leases approximately 4,500 acres of land to Caterpillar Corporation for their proving grounds and training center. With the majority of the buildings and other significant improvements are on their fee land. The leased land is utilized in conjunction with the fee land for testing and demonstration purposes. This lease could be jeopardized if the proposed power lines created a physical restriction/constraint on the use of the facility or if the aesthetic view corridor Caterpillar uses as a backdrop for its facility were to be severely impacted by the power lines. In either case, the income producing ability of the lease would be jeopardized, as well as the significant financial benefit to the local community. Caterpillar has outlined their economic benefit to the community in a previous correspondence to the DOE.

3

4.) Acquisition of State Trust Lands - Under Chapter 9 (applicable Environmental Laws, Regulations, Permits and DOE Orders) it is indicated that TEP would acquire access across State Trust lands via condemnation. This is incorrect. Only the federal government may exercise it's power of eminent domain and condemn State Trust lands. TEP does not have condemnation power on trust lands. It should also be noted, that the Arizona State Corporation Commission has no authority to require the Arizona State Land Department to issue a right of way across trust lands.

As initially stated, we are still in the process of analyzing the impacts of the proposed routes and since TEP has not formally filed an application to purchase the required easement no final determination can or will be made at this time. Based upon our current mission and the laws governing the Trust we cannot endorse the central alignment. But as stated, there are concerns regarding both of the other proposed alignments, not the lease of which is the Caterpillar Lease. These concerns could become more acute if the proposed legislation for conservation of these land is passed.

Hopefully this information can and will be incorporated into the final EIS report and taken into consideration in any recommendations made by the DOE.

11/23/2004

Comment No. 3

Chapter 9 has been revised to indicate that construction on State Trust lands would require a right-of-way grant from the State Land Department. Also, a footnote has been added, stating: **"**Only the Federal government may exercise it's power of eminent domain and condemn State Trust lands. TEP does not have condemnation power on State Trust lands. It should also be noted, that the Arizona Corporation Commission has no authority to require the Arizona State Land Department to issue a right of way across State Trust lands."

Beals, Linda R., Manager, Arizona State Land Department
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If you need any clarification on the matter herein for any additional information, please do not hesitate to call me at 602-542-2648.

Linda R. Beals, Manager
Right of Way Section
Arizona State Land Department

11/23/2004

Border Power Plant Working Group
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BORDER POWER PLANT WORKING GROUP

GRUPO DE TRABAJO DE TERMOELECTRICAS FRONTERIZAS

October 14, 2003

Dr. Jerry Pell, Senior Environmental Scientist
Fossil Energy, FE-27
U.S. Department of Energy
Forrestal Bldg., Room 4G-025
Washington, DC 20565
fax: 202-318-7761

Subject: Border Power Plant Working Group Comments on Tucson Electric Power Company Sahuarita–Nogales Transmission Line Draft Environmental Impact Statement

Dear Jerry:

Thank you for this opportunity to comment on the Tucson Electric Power Company (TEP) Sahuarita–Nogales Transmission Line Draft Environmental Impact Statement (EIS). I have reviewed the document on behalf of the Border Power Plant Working Group (BPPWG). My comments are provided in the following paragraphs.

Overview of Principal Issues

1 The current power glut in Arizona is well documented. New combined-cycle gas turbine power plants that cost hundreds of millions of dollars to build are sitting idle due to over-capacity and high natural gas prices. Arizona utilities are facing an "*energy market that is overbuilt*" according to Arizona Public Service.[1] In this supply context, the Arizona Corporation Commission (ACC) has the obligation to "*. . . balance, in the broad public interest, the need ... for electric power (and transmission of electric power) with the desire to minimize the effect thereof on the environment . . .*".[2] ACC Order No. 62011 mandated that TEP and partner Citizens build a second transmission line from Tucson to customers in Santa Cruz County by December 31, 2003. It is my understanding that ACC Order No. 62011 was highly contested by citizens groups precisely because the mandated second transmission line did not minimize impact on the environment relative to viable alternatives.

Santa Cruz County has a population of approximately 40,000 people.[3] Typical electrical load is well under 50 MW, and peak load is approximately 65 MW (EIS, pg. 1-8). The 50 MW peaking gas turbine power plant in Nogales was recently upgraded by Citizens and is fully capable of meeting the power needs of Santa Cruz County[4], except under extreme summer heat conditions, if the existing 115 kv line from Tucson goes down for any reason. Upgrades to the 115 kv line

[1] Hogan, T., *Power Plant Regulation in Arizona*, presented at Dry Cooling Symposium, San Diego, May 31, 2002.
[2] Ibid.
[3] U.S. Census Bureau, QuickFacts for Santa Cruz County, http://quickfacts.census.gov/qfd/states/04/04023.html

Comments No. 1 and 2

TEP's purpose and need for the proposed project is to connect to electrical systems in both Nogales, Arizona, and Mexico. If TEP's proposed project is approved by each of the Federal agencies, then there would still be a variety of events that could preclude TEP from implementing this project, such as the possibility of failure by TEP to secure a power sales contract with CFE. Issuance of a Presidential Permit by DOE would only indicate that DOE has no objection to the project, but would not mandate that the project be built.

A double-circuit transmission line, such as the proposed 345-kV transmission line, is built for redundancy, so that if one of the circuits is out of service, the other circuit can carry the entire load that would normally be split between the two circuits. This effectively limits the maximum amount of power that would be put on this transmission line to 1,000 MW total, or 500 MW per circuit, which is what this EIS assesses

If DOE issues a Presidential Permit, it would contain limits on the amount of power that could be placed on the transmission line. These limits are based on reliability studies done in support of the application and also on the design limiting the transmission line to operate at 500 MW. If TEP wanted to operate the transmission line above 500 MW, TEP would have to apply to DOE for an amendment to their Presidential Permit, and DOE would have to perform additional analysis required by NEPA.

Section 2.1.5 discusses why a new power plant in Nogales is not a viable alternative to a new, second transmission line (part of TEP's proposal). As discussed in that section, "new local generation does not pre-empt the need for a second transmission line. This is because the system deficiency is not a supply problem but rather a delivery problem that new generation can not solve. New local generation would be susceptible to tripping off line for a transmission line outage just like the existing Valencia units until a second transmission line connects Nogales to the Arizona grid." Likewise, a smaller transmission line in lieu of the proposed 345-kV line (e.g., a 115-kV line) would not meet the international interconnection aspect of TEP's proposal. The original ACC Decision No. 62011 (ACC 1999) mandates the construction of a second transmission line to serve customers in Santa Cruz County and does not reference the export of electricity to Mexico. However, a second ACC order (Decision No. 64536, issued in January 2002) grants a CEC to TEP to construct only a 345-kV transmission line with the dual purpose of

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1 cont. to increase capacity to 100 MW could readily be carried-out in the cooler months. The Nogales peaking plant could provide power for those periods when the 115 kv line had to be offline. There is no reason to build a second transmission line capable of transmitting 2,000 MW to briefly unload the existing 115 kv line for necessary upgrades.

The proposed transmission line, permitted to carry 500 MW but capable of transmitting up to 2,000 MW, will meet Santa Cruz County's projected power demand growth for a few centuries.

2 It makes no sense to build a project of this size for Santa Cruz County. The purpose of the 345 kv transmission is to (hopefully) find a market for excess Arizona power in Mexico. This is probably wishful thinking, given the two Mexican urban areas within 200 miles of Santa Ana County, Nogales and Hermosillo, are building (or have built in the case of Hermosillo) combined-cycle power plant capacity to meet local demand.[5] Ultimately the TEP and Citizens ratepayers will pay the price for Arizona merchant power plant developer miscalculations if this transmission line is built. The merchants rolled the dice and lost. Arizona is overbuilt and will be for the foreseeable future. This transmission line proposal is ill-advised, given there is no obvious market for Arizona power in Sonora. It is my opinion that TEP and Citizens would never have considered pursuing the construction of this 345 kv line if they had to build it as a merchant project.

3 The draft EIS follows thin logic in rejecting the obvious alternative to the transmission line, the addition of 25 to 50 MW of peaking power in Nogales, by stating such an approach would not meet ACC Order No. 62011. The DOE's ability to evaluate increased power generation in Nogales is in no way limited by of ACC Order No. 62011. The stated purpose of the TEP/Citizens proposal, to build a 345 kv transmission line capable of moving 2,000 MW to supply a county that at some point in the distant future could have a peak demand of 100 MW, is ridiculous if taken at face value. This is a project designed to export power to Mexico. Exporting power to Mexico is not mentioned in ACC Order No. 62011. Citizens has committed to purchase up to 100 MW of power from the new line to meet the foreseeable needs of Santa Cruz County (pg. 1-8). DOE must evaluate transmission projects with a capacity of 100 MW (only) if ACC Order No. 62011 is being used by DOE to justify eliminating alternatives. Any capacity beyond 100 MW is outside the scope of ACC Order No. 62011.

DOE Office of Fossil Energy and Conflict of Interest

4 There is at a minimum an appearance of a major conflict of interest in having the DOE Office of Fossil Energy (OSE) prepare an EIS for a cross-border transmission project when DOE OSE has an electricity import/export team devoted to promoting cross-border transmission projects.[6] How can OSE fairly evaluate the most appropriate course of action from an environmental standpoint, which in my opinion would be an incremental increase in available power assets in Nogales,

[4] Citizens Communication Company – Arizona Electric Division, company overview presentation at Arizona Local Government Energy Symposium, April 6, 2001.
[5] Ramos-Elorduy, A., *CFE Strategies to Address Opportunities in the Power Sector – Mexican Perspective on Case Study and Bid Process*, presented at U.S.-Mexico Cross Border Energy Interconnection and Trade Workshop, November 2002. (attached)
[6] http://fossil.energy.gov/programs/electricityregulation

Comments No. 1 and 2 (*continued*)

addressing the service reliability problems in Santa Cruz County and providing interconnection with Mexico. Alternatives that would not satisfy both elements of TEP's dual purpose are not reasonable alternatives for the Federal agencies to consider in detail. Therefore, these alternatives are not evaluated in detail in this EIS (see Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis).

Regarding consumer electricity rates, the ACC controls what actions electric utilities can take in Arizona to serve its citizens and approves the necessary ACC, not the Federal agencies. Because the Federal agencies cannot anticipate how the ACC may adjust consumer electricity rates in light of the proposed project, the potential change in consumer electricity rates is too speculative for inclusion in the EIS. Refer to the ACC's website (http://www.cc.state.az.us/about/index.htm) for more information on how electricity rates are determined. In addition, the potential economic benefit to TEP from the proposed project is outside the scope of the EIS.

Comment No. 3

In permit proceedings such as TEP's, where an applicant seeks permission for a specific proposed project to meet the applicant's specific purpose and need, the Federal agencies generally limit their review to alternatives similar to the one proposed, i.e., that is, alternatives that would meet the applicant's purpose and need. The agencies generally do not review alternatives that are not within the scope of the applicant's proposals. Similarly, the Federal agencies do not compel a permit applicant to alter its proposal or its purpose and need, but instead they decide whether a permit is appropriate for the specific proposal as the applicant envisioned it. It is not for the agencies to run the applicant's business or to compel an applicant to change its proposal: DOE evaluates the project as offered. Therefore, in an applicant-initiated process, the range of reasonable alternatives analyzed in detail is limited to those alternatives that would satisfy the applicant's purpose and need and that the applicant would be willing and able to implement, plus the no-action alternative. All of the alternatives analyzed in this EIS were either suggested by or similar to alternatives suggested by TEP.

This approach is particularly apt where, as here, the proposed action reflects a state's decision as to the kind and location of electrical infrastructure it wants

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4 cont. Arizona or at most a 100 MW transmission line from Tucson that could readily be undergrounded, when the same OSE has an entire team dedicated to promoting the export of large amounts of electricity to Mexico? Any public official or judge would be required by law to recuse him- or herself in a similar situation.

Alternatives that Must be Examined in Revised Draft EIS

1. Expansion of Generating Capacity in Nogales, Arizona

5 Expanding power generation capacity in Nogales resolves all substantive negative environmental issues associated with the proposed transmission line and must be evaluated in the EIS. The EIS should note that this alternative conflicts with the current form of ACC Order No. 62011. ACC Order No. 62011 could be amended at any time to remove the conflict. The environmental disruption of major overhead transmission line projects is significant, controversial, and permanent. Moving electricity long distances over transmission lines results in large system efficiency losses. The California Energy Commission estimates that 5 to 9 percent of all electricity produced in California is lost on transmission lines before doing any useful work. Presumably the situation is similar in Arizona. From an energy efficiency and infrastructure security standpoint it is far more appropriate to build new power plants close to the demand than to promote a form of "competition" that requires huge investments in long transmission infrastructure and huge energy losses on these long transmission lines, neither of which the "competitors" pay for. In addition, building local generation assets to serve local demand is consistently less expensive than constructing high tension transmission lines from distant power plants.

2. Evaluate a 100 MW Capacity Transmission Line

6 The stated purpose of ACC Order No. 62011 (pg. 1-7) is to mandate the construction of a second transmission line to serve customers in Santa Ana County. TEP has reached an agreement with Citizens to provide up to 100 MW of transmission capacity from Tucson to Nogales to meet ACC Order No. 62011 (pg. 1-7). Once the second line is in service, Citizens would be able to make necessary upgrades to the existing transmission line to achieve a capacity of 100 MW, allowing either line to serve Citizen's load for the foreseeable future (pg. 1-8). ACC Order No. 62011 mandates sufficient ratepayer investment to construct a 100 MW transmission line. Given DOE used ACC Order No. 62011 as a deciding factor in assessing viable alternatives, one alternative that clearly must be evaluated is a transmission line that meets the explicit intent of ACC Order No. 62011 – a second transmission line capable of meeting the 100 MW capacity commitment to Citizens.

2 cont. Any transmission capacity beyond 100 MW is strictly a speculative venture from the standpoint of ACC Order No. 62011, and environmental impacts caused by transmission capacity beyond 100 MW should be viewed in this light. The additional cost of transmission capacity beyond 100 MW should also be compared to the expected revenue to TEP based on accurate electric supply and demand forecasts for Sonora, Mexico. It is quite likely that: 1) TEP and Citizens

Comment No. 3 (*continued*)

provided within its boundaries. The ACC is vested with the authority to decide how it believes energy should be furnished within Arizona's borders, including the need for, the location of, and the effectiveness of transmission lines within its borders. See the discussion at Section 1.1.2 and 1.2.2 of the EIS with respect to the respective jurisdictions and authorities of the state and Federal agencies, and their relationship to this NEPA review. TEP's proposal has the dual purpose of addressing problems of electrical reliability in Santa Cruz County, Arizona, and crossing the border to eventually interconnect with the Mexican electrical grid. Alternatives that would not satisfy both elements of this dual purpose are not reasonable alternatives for the Federal agencies to consider in detail.

Thus, during the course of this NEPA review, the Federal agencies have considered alternative routes for TEP's proposed transmission line, but have not deemed feasible proposed alternatives that contemplate construction of power plants or transmission lines that differ in capacity from those that the ACC has directed TEP to construct. Transmission projects with a capacity of 100 MW, as suggested by the commentor, are not considered in detail because they would not satisfy one or both elements of TEP's dual purpose. Section 2.1.5 of the FEIS has been revised to provide additional information about the reasons why these and other suggested alternatives would not satisfy TEP's purpose and need.

Comment No. 4

The facilitation of cross-boundary projects referred to on the DOE website that the commenter cites does not include promotion of specific projects. Rather, the DOE Office of Fossil Energy (FE) is responsible for facilitating international electricity trade by coordinating the review of regulatory proceedings among all jurisdictional Federal agencies and relevant agencies in Canada and Mexico. This facilitation takes the form of reducing duplicative reviews and streamlining internal administrative processes where possible.

FE does not promote or otherwise pre-decide the merits of any Presidential Permit proceeding. FE's role in the facilitation of international electricity trade is limited to ensuring that review processes comply with all applicable laws. The Department of Energy will determine in a Record of Decision (ROD) whether a Presidential Permit is in the public interest.

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2 cont. ratepayers will be stuck with the bill for transmission capacity twenty times greater than they could possibly use, 2) a great deal of irreparable environmental damage will be done to the transmission corridor, and 3) little revenue will be generated via power sales to Mexico.

3. Evaluate Undergrounding the Transmission Line

7 The obvious alternative to building transmission towers in sensitive areas such as the Coronado National Forest, assuming the transmission capacity is absolutely necessary, is to underground the transmission line(s). This is standard practice in many urban areas of the country. Undergrounding transmission lines is more expensive than constructing overhead lines. However, undergrounding the transmission line will eliminate the visual impact and greatly reduce the width of the right-of-way proposed to provide access to the monopole transmission towers. The citizens of southern Arizona have a right to a comprehensive assessment of the technical issues and costs associated with undergrounding the 100 MW or 2,000 MW transmission line alternatives.

Thank you again for this opportunity to comment on the TEP Sahuarita–Nogales Transmission Line Draft EIS. I look forward to receiving your response. In the meantime, I can be reached at (619) 295-2072 if you have any questions about this comment letter.

Sincerely,

Bill Powers, Chair
Border Power Plant Working Group

Attachment: *CFE Strategies to Address Opportunities in the Power Sector – Mexican Perspective on Case Study and Bid Process*, presented at U.S.-Mexico Cross Border Energy Interconnection and Trade Workshop, November 2002

cc: Senator John McCain
Senator Jon Kyl
Congressman Jim Kolbe
Congressman Ed Pastor
Richard Kamp, Border Ecology Project
Tim Hogan, Arizona Center for Law in the Public Interest
Matt Skroch, Sky Island Alliance
Kieran Suckling, Center for Biological Diversity

Comment No. 5

There are negative environmental impacts associated with construction and operation of a power plant. Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis, has been revised to describe the types of environmental impacts that could be associated with a new power-generating facility. The major adverse impacts would be to air quality, water resources, and visual resources, along with impacts from land disturbance at the generating facility site and along required infrastructure such as connecting transmission lines or fuel supply lines. Impact from land disturbance could affect biological, cultural, and soil resources. That section also explains why a new power plant in Nogales is not a viable alternative to the proposed project.

It is not within the discretion of the Federal agencies to determine the best means for providing for the energy needs of the state. If the ACC were to issue new or amended decisions (for example, in relation to ACC Decision No. 62011) relevant to TEP's proposed project, the Federal agencies would consider such amendments as they relate to the purpose and need for the proposed project.

Comment No. 6

A smaller transmission line (e.g., 100 MW capacity line) in lieu of the proposed 345-kV line would not meet the international interconnection aspect of TEP's proposal, and therefore is not evaluated in detail in this EIS (refer to Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis). See reply to comment 3 above.

Comment No. 7

It is technically feasible to bury both the 345-kV and 115-kV transmission lines. Burying transmission lines reduces the visual impacts of the transmission lines at ground level to only the disturbances associated with the cleared ROW, and aboveground level to facilities that are required along the transmission line for operational reasons. For approximately every 14 mi (22.5 km) of buried transmission line, intermediate facilities are required to boost the conductor cables' current-carrying ability.

There are disadvantages to burying transmission lines, including technical difficulties (reliability and implementation) and potential impacts to

Comment No. 7 (*continued*)

environmental resources other than visual resources. A major disadvantage of burying transmission lines is that reliability can be greatly reduced through lengthening power outages, as experience has shown that a failure underground is difficult to locate, and once located, is relatively more difficult to repair. Implementation difficulties include working with geologic conditions such as bedrock (necessitating explosives blasting), and needing to avoid existing underground utilities such as gas, sewer, phone, and electrical distribution lines in more populated areas. The primary utility to be avoided by TEP's proposed project would be the existing natural gas pipeline in the vicinity of portions of each of TEP's proposed corridors. Given these implementation difficulties, the cost of burying transmission lines can be an estimated 7.5 to 12 times higher than traditional overhead construction for a given project (EEI 2003). Increased environmental impacts result from trenching for the length of the transmission line, resulting in disturbance to soils, biological, and cultural resources. The resulting disturbance is larger than that associated with support structures and access roads for traditional overhead transmission lines.

Because of the disadvantages and cost differential associated with burying transmission lines, this alternative is not evaluated in detail in the EIS. Section 2.1.5, Alternatives Considered But Eliminated From Further Analysis, has been revised to explain why the option of burying transmission lines was considered but eliminated from further analysis in the EIS.

Californians for Western Wilderness
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Tucson Electric Power Sahuarita-Nogales Transmission Line DEIS

From: Mike Painter [SMTP:mike@caluwild.org]
To: Pell, Jerry
Cc:

Subject: Tucson Electric Power Sahuarita-Nogales Transmission Line DEIS
Sent: 10/14/2003 4:31 PM
Importance: Normal
October 14, 2003
Dr. Jerry Pell
Office of Fossil Energy
U.S. Department of Energy
Washington, DC 20585
via e-mail: Jerry.Pell@hq.doe.gov
Re: Tucson Electric Power Sahuarita-Nogales Transmission Line DEIS

Dear Dr. Pell:
I am writing on behalf of more than 601 members and supporters of Californians for Western Wilderness. We are an unincorporated citizens organization dedicated to encouraging and facilitating citizen participation in legislative and administrative actions affecting wilderness and other public lands in the West.

1 I wish to object to the preferred alternative in the Draft Environmental Impact Statement, the Western Route. This route would cut through areas proposed for inclusion in the National Wilderness Preservation System, rendering any such designation impossible or useless. The Crossover Route of Alternative 3 would do the same thing. These alternatives are unacceptable.

Comment No. 1

The Federal agencies are aware that environmental groups are interested in achieving Federal wilderness designation for a large portion of the Tumacacori EMA. Maps provided by commentors indicate that all corridor alternatives considered in this EIS cross the area suggested for wilderness designation. Presence of a transmission line would not necessarily preclude wilderness designation, as the Wilderness Act of 1964 and Forest Service regulations (36 CFR 293.15) allow for the existence, establishment and subsequent maintenance of transmission lines in wilderness areas. Information about the wilderness proposal has been added to Section 5.2.4 of the FEIS as a potential future action.

Comment No. 2

Sections 3.3.3 and 4.3.3 presents analyses of the existing special status species, and potential impacts to these species as a result of the proposed project. Section 3.3.2 discusses the existing vegetation and wildlife in the proposed project area. Sections 3.2 and 4.2 present analyses of the existing visual resources and potential impacts to visual resources as a result of the proposed project. As indicated in those sections, the proposed project has the potential to impact habitat and species, and would impact visual resources.

Comment No. 3

The Federal agencies recognize that many people value the sense of place that exists along areas of the alternative transmission corridors because of the areas' natural beauty, undisturbed landscape features, abundant plant and animal wildlife, and cultural resources. The Federal agencies appreciate this holistic sense of place and have revised the introductory sections of Chapters 3 and 4 of the Final EIS to acknowledge these values.

The Final EIS has also been revised to provide more information about the other topics raised by the commentor. Specifically, Sections 3.1, Land Use, and 3.12, Transportation, discuss the existing roads and inventoried roadless areas (IRAs) within the Coronado National Forest. Sections 4.1, Land Use, and 4.12, Transportation, evaluate potential impacts related to roads. Section 3.1.2 states that there is off-highway (off-road) vehicle use in the project area.

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2 This area of Arizona is home to many species of endangered, threatened, or otherwise rare animals and plants. In addition it is a scenic area, and the presence of transmission lines and towers will degrade the scenic values, especially in Coronado National Forest.

3 The project will require the construction of roads in roadless areas, and even if those roads are closed, they will leave scars that will take a very long time to heal. Also, some off-road vehicle enthusiasts pay no attention to road closures and use those roads for their recreation. Powerlines and roads are a known vector for the spread of non-native, invasive weeds.

2 cont. Additionally roads fragment wildlife habitat. We also question the adequacy of the DEIS, since it does not look at alternatives

4 containing other than 345 kV transmission lines. In fact, Tucson Electric Power does not state a need for a transmission line of that size. There are other alternatives carrying less, especially given the power needs of Santa Cruz County. I urge you to analyze that more carefully in a revised draft of the EIS.

Thank you for this opportunity to comment. Please keep us informed of your decision in this matter and further opportunities for public involvement.

Sincerely,
Michael J. Painter
Coordinator

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Californians for Western Wilderness
P.O. Box 210474
San Francisco, CA 94121-0474
415-752-3911
info@caluwild.org
http://www.caluwild.org

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Comment No. 3 (*continued)*

Section 4.1.2 analyzes the impacts of off-highway vehicle use as one of many recreational uses of the project area, including the Coronado National Forest.

Section 4.3.2, Biological Resources, states that the long-term reductions in biological activity (e.g., lack of vegetation in an area due to construction traffic) tend to be more pronounced in arid areas such as the proposed project area where biological communities recover very slowly from disturbances. Sections 3.3.3 and 4.3.3 presents analyses of the existing special status species, and potential impacts to these species as a result of the proposed project. Section 3.3.2 discusses the existing vegetation and wildlife in the proposed project area, and Section 4.3.2 analyzes habitat fragmentation impacts. Sections 3.3.6 and 4.3.6 discuss the existing invasive species (nonnative plants) in the project area, and potential invasive species impacts that could result from the proposed project.

Comment No. 4

In permit proceedings such as TEP's, where an applicant seeks permission for a specific proposed project to meet the applicant's specific purpose and need, the Federal agencies generally limit their review to alternatives similar to the one proposed, i.e., that is, alternatives that would meet the applicant's purpose and need. The agencies generally do not review alternatives that are not within the scope of the applicant's proposals. Similarly, the Federal agencies do not compel a permit applicant to alter its proposal or its purpose and need, but instead they decide whether a permit is appropriate for the specific proposal as the applicant envisioned it. It is not for the agencies to run the applicant's business or to compel an applicant to change its proposal: DOE evaluates the project as offered. Therefore, in an applicant-initiated process, the range of reasonable alternatives analyzed in detail is limited to those alternatives that would satisfy the applicant's purpose and need and that the applicant would be willing and able to implement, plus the no-action alternative. All of the alternatives analyzed in this EIS were either suggested by or similar to alternatives suggested by TEP.

This approach is particularly apt where, as here, the proposed action reflects a state's decision as to the kind and location of electrical infrastructure it wants provided within its boundaries. The ACC is vested with the authority to decide how it believes energy should be furnished within Arizona's borders,

Comment No. 4 (*continued*)

including the need for, the location of, and the effectiveness of transmission lines within its borders. See the discussion at Section 1.1.2 and 1.2.2 of the EIS with respect to the respective jurisdictions and authorities of the state and Federal agencies, and their relationship to this NEPA review. TEP's proposal has the dual purpose of addressing problems of electrical reliability in Santa Cruz County, Arizona, and crossing the border to eventually interconnect with the Mexican electrical grid. Alternatives that would not satisfy both elements of this dual purpose are not reasonable alternatives for the Federal agencies to consider in detail.

Thus, during the course of this NEPA review, the Federal agencies have considered alternative routes for TEP's proposed transmission line, but have not deemed feasible proposed alternatives that contemplate construction of power plants or transmission lines that differ in capacity from those that the ACC has directed TEP to construct. Section 2.1.5 of the EIS explains why other alternatives, such as a smaller transmission line, were eliminated from detailed analysis in the EIS.